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## SUPPRESSION AND NON-WORKING OF PATENTS, WITH SPECIAL REFERENCE TO THE DYE AND CHEMICAL INDUSTRIES

Patentees cannot combine their patents to restrain trade in a patented article; but the United States Supreme Court has clearly recognized the right to suppress patents.<sup>1</sup> This enables the patentee to buy up the patents relating to a particular industry, use any part of them, suppress the remainder, and thus prevent the competition that would otherwise spring up between the owners of the patents. It secures a monopoly of monopolies, and practically confers a patent on the whole industry. The result is exactly the same as that of a combination of patentees, manufacturers or others, to restrain trade.

The purchase and suppression of patents not only promotes monopoly; it also discourages invention and retards industrial progress and hence defeats the purpose of the patent law. This point finds clear expression in a statement of the Inventors' Guild, an association of eminent inventors:

It is a well known fact that modern trade combinations tend strongly toward constancy of processes and products, and by their very nature are opposed to new processes and new products originated by independent inventors, and hence tend to restrain competition in the development and sale of patents and patent rights; and consequently tend to discourage independent inventive thought, to the great detriment of the nation, and with injustice to inventors whom the Constitution especially intended to encourage and protect in their rights.<sup>2</sup>

It is difficult to find specific evidence with which to prove this practice, as no general intensive investigation of it has ever been made. Nevertheless, a Circuit Court in 1906<sup>3</sup> ascertained that the Indiana Manufacturing Company had acquired over 100 patents relating to straw stackers which could not be used conjointly, and hence many of them had been suppressed. The National Harrow Company in 1897 was said to control 85 patents on spring-

<sup>1</sup> *Blount Manufacturing Company v. Yale and Towne Manufacturing Company*, 166 Fed. 555 (1909) and *Continental Paper Bag Company v. Eastern Paper Bag Company*, 210 U. S. 405 (1908) respectively.

<sup>2</sup> *Revision of Patent Laws*, Report No. 1161, House of Representatives, 62 Cong., p. 3.

<sup>3</sup> *Indiana Manufacturing Company v. J. I. Case Threshing Machine Company*, 148 Fed. 21.

tooth harrows, some of them unused.<sup>4</sup> In the so-called Lock case<sup>5</sup> the court announced in 1909 that, "It is a fact familiar in commercial history that patent rights have a commercial value for purposes of extinction, that many patents are purchased in order to prevent the competition of new inventions and of new machines already installed." The button-fastener and paper bag cases<sup>6</sup> present evidence of the suppression of patents. The American Tobacco Company acquired a patent for a tobacco-stemming machine by purchasing a majority of the stock of the Standard Tobacco Stemmer Company. This machine was not manufactured, but the control of the patent by this combination prevented its development and use by competitors.<sup>7</sup>

The suppression of patents was brought out in the recent hearings on bills relating to trust legislation.<sup>8</sup>

Paper patents, patents covering inoperative devices, and dormant patents (that is, patents not used, but applied for and held for the purpose of preventing the manufacture of the devices or improvements therein described) are at the foundation of much of the most injurious monopoly and trade restraint. . . . Again, there are thousands of patents lying dormant, having been acquired by established concerns whose business was threatened by competition.

In 1916 the A. B. Dick Company controlled 128 patents relating to only a few subjects.<sup>9</sup> Of these patents only 67, about one half, were first issued to A. B. Dick, the others being acquired from other parties. Twenty-four of these patents relate to sheet-feeding apparatus in connection with a duplicating machine. It seems certain that these patents cannot be conjointly used in a single sheet-feeding apparatus, nor is the one the outgrowth or development of the other. They represent different lines of improvement of different basic inventions, all proceeding simultaneously. Three of the patents relate to the feeding of sheets to a duplicating machine from the *top* of the pile, and two, from the *bottom*; the dates of issue of the former are February 2, 1904, July 3, 1906, and May 25, 1915; of the latter, June 19, 1906,

<sup>4</sup> *National Harrow Company v. Bement*, 21 Appellate Division, N. Y. 290.

<sup>5</sup> 166 Fed. 560.

<sup>6</sup> 77 Fed. 288 and 159 Fed. 741, 210 U. S. 405.

<sup>7</sup> *Report of the Commissioner of Corporations on the Tobacco Industry*, pt. 1, p. 34.

<sup>8</sup> *Hearings before the Committee on Interstate Commerce*, United States Senate, 63 Cong., V, II, p. 1078.

<sup>9</sup> This is based on a study of the Dick patents, which may be obtained from the Patent Office.

and August 14, 1906. This shows that the development of the one line of invention did not cease before the other began. All the sheet-feeding apparatus employed in 1916 on the duplicating machines of the A. B. Dick Company fed the sheets of paper to the machine from the *top* of the pile. Prior to that time, it does not seem that the A. B. Dick Company provided its machines with an apparatus to use the Dick patents for feeding sheets from the bottom of the pile. In other words, some of the patents have never been used; and as this company has consistently refrained from using them, it is equivalent to their suppression.

In 1916 twenty-eight patents of the A. B. Dick Company pertained to stencil sheets. These patents cannot be used conjointly in the preparation of stencil paper; they represent different lines of invention, each independent of the other. They cover five methods of forming characters in the stencil sheet, namely, abrasion, pressure, heat, adhesion, and extraction. The dates of issue of the patents relating to abrasion are 1880, 1886, 1890, 1892, and 1914; to pressure, 1888 and 1892; to heat, 1893; to adhesion, 1894 and 1896; and to extraction, 1895. One method did not become obsolete and then another appear; improvement or evolution of the one did not cease before that of another began. They all developed simultaneously, but each distinct from the other. A. B. Dick himself received letters patents for one method only, namely, pressure; all the patents covering the other four methods were issued to other parties, and A. B. Dick obtained control of them. These patents, representing five distinct means of forming characters in a stencil sheet, cannot be, and as a matter of fact were not, conjointly used; only two methods, pressure and abrasion, have been employed by the A. B. Dick Company. The acquisition of the other three methods would seem to have no legitimate justification; instead, it indicates an intention to monopolize all patents relating to the preparation of stencil paper so as to use a part of them and suppress the remainder.

It seems that the strength of other industrial monopolies based largely on patents, likewise arose from this same practice, and, therefore, that the suppression of patents undoubtedly constitutes an evil of our patent system that demands correction. Every great nation except the United States provides for the utilization of a patent or else its revocation. If the patentee does not care to use his invention, he must grant licenses to others or surrender his patent. This country should soon realize the economic necessity of a similar provision in its patent law.

Many foreigners who obtain patents from the United States do not utilize them in this country, but "work" them elsewhere, usually in their own country, from which they have also secured patents of the same subject-matter. In this manner, foreigners have reserved the United States as the exclusive market for their goods—a territorial monopoly, as it were, defined by national boundaries.

The effect of the non-working of patents by foreigners upon the industrial development of the United States varies with respect to the nature of the patented invention and the availability of the patented product. If the invention represents only an improvement, it is quite possible for the manufacturers in this country to bring forth similar but different improvements or intensive inventions of equal or greater efficiency. If the invention is basic or pioneer and highly original, they are at a greater disadvantage. Moreover, this disadvantage may be extended to other industries by withholding from them the patented product upon which their development depends.<sup>10</sup>

Every great nation except the United States has taken measures to prevent the exploitation of its patent system in the manner just described. England, the last country to do this, passed the Patent Act of 1907, commonly called the "compulsory working" clause. It stipulates three courses which are open to the choice of the patentee; "to work the invention; to prove that the circumstances are unfavorable to such working; or to surrender his power to prevent others from using the invention."<sup>11</sup> The law applies alike to the foreign and home patentees. The effect has been the construction and operation of factories in England by foreigners, by German concerns in particular.

In Germany the patentee must put the invention to commercial use in Germany and must grant licenses on reasonable terms or else be deprived of his patent through cancellation.<sup>12</sup>

American manufacturers, due largely to the laws of foreign nations which require the working of patents, have established factories within their confines. Typewriter companies, for example, the Underwood, Oliver, and Smith Premier, are established in foreign countries.<sup>13</sup> In 1908, the United Shoe Machinery Com-

<sup>10</sup> *The English Patent System*, by A. F. Ravensheer, pp. 77, 78, and 137; also, see *English Patent System*, by William Martin, p. 29.

<sup>11</sup> *The English Patent System*, by A. F. Ravensheer, pp. 82 and 83.

<sup>12</sup> *Ibid.*, pp. 119 and 121.

<sup>13</sup> See Perry's *Directory of Great Britain and Ireland*, 1917, pp. 1943, 1944, 2605, and 2671.

pany reported to the stockholders that "the foreign companies have largely increased their manufacturing capacity."<sup>14</sup> Also, the International Harvester Company has established factories in foreign countries.

The extent to which United States patents may be suppressed by foreigners is suggested by the large number of patents, both absolutely and relatively, which are granted to foreigners by this country. During 1910 to 1915 the United States granted 21,073 patents to citizens of foreign countries, 11.43 per cent of the total number of patents granted during this period. From 1900 to 1910, the per cent of patents obtained by foreigners to the total was 11.26; 1890 to 1900, 9.86; 1880 to 1890, 6.64; and 1870 to 1880, 4.50. Prior to 1870 the percentages are less and less. From 1915 to 1917, foreigners received only 8.52 per cent of the patents granted by the United States owing to the influence of the war.

About eighty per cent of the foreign patentees are citizens of Canada, England, France, and Germany. During the three periods, 1890 to 1900, 1900 to 1910, and 1910 to 1915, England received 32, 25, and 22 per cent respectively of all patents granted to foreigners by the United States; France received 9, 9, and 8 per cent respectively; and Germany, 25, 30, and 33 per cent respectively.<sup>15</sup>

The great increase in the relative number of patents granted to German citizens is to be noted, such patents increasing from 25 per cent of the total in 1890 to 1900, to 33 per cent in 1910 to 1915. The percentage fell to 22 per cent during the years from 1915 to 1917 owing to the war.

The relatively large number of patents granted to foreigners by the United States may be ascribed to the cheapness and convenience of acquiring and maintaining them. The initial patent fee is nominal and there are no yearly charges or fees. Moreover, this country does not require the "working" of patents—a factor of great importance to the foreigner.

Most of the patents granted to foreigners, to Germans especially, relate to only a few subjects, the dye and chemical industries in particular. This fact, together with the non-working of such patents in the United States, largely accounts for the lack

<sup>14</sup> *United Shoe Machinery Corporation, Report of the President to the Annual Meeting of Stockholders, 1908*, p. 2.

<sup>15</sup> *Annual Reports of the Commissioner of Patents to Congress*.

of development of these industries in this country, that is, before the world war. Up to January 1, 1902, 1196 patents known to the Patent Office as "carbon dyes" had been issued, 622 of them during the decade 1891 to 1900. Of these 622 patents, 609 or 97.91 per cent were issued to foreign inventors, the Germans preponderating, and 2.09 per cent to American inventors.

During 1900 the value of the imports of coal-tar colors and dyes was \$4,890,072, of which Germany is credited with \$3,822,162. The country which furnished most of the patentees is the one which furnished most of the imports. During the same year the value of the artificial dyestuffs manufactured in the United States was \$52,648, 1.07 per cent of the aggregate of imports and home product for 1900. It would seem that there is a correlation between this per cent and the per cent of patents relating to this industry issued to American inventors, namely, 2.09.

Up to January 1, 1902, the Patent Office had issued 532 patents relating to "carbon compounds" (chemicals), of which 312 were issued during the decade 1891 to 1900. 281 or 90.1 per cent of these 312 patents were issued to foreign inventors, the Germans predominating, and 9.9 per cent to American inventors.

During 1900, the value of the imports of "chemicals, drugs and dyes, all others (dutiable)" was \$6,530,037, of which Germany was credited with \$3,145,254. Again, it is evident that the country which furnished most of the patentees is the one which furnished most of the imports.

During 1900 the value of fine chemicals made in this country was \$4,206,744. This is 39.18 per cent of the total of imports and home manufacture, while 9.94 per cent of the patents covering chemicals were granted to American inventors.<sup>16</sup> This comparison is subject to slight error as the classifications of chemicals by the Census Bureau and Patent Office do not exactly coincide.

Statistics for more recent years which show the correlation between the distribution of United States patents to citizens of this country and foreign nations, on the one hand, and the relative values of manufactures in the United States and imports into this country, on the other, are not available. It would seem, however, that the correlation continued to exist until the outbreak of the war in 1914.

A recent report of A. Mitchell Palmer, the alien property cus-

<sup>16</sup> *Twelfth Census of the United States, 1900, vol. X., Manufactures, pt. IV, Special Reports on Selected Industries, 1902*, pp. 759 and 760.

todian, indicates the progress and future of the American industry of dyestuffs and medicines. Until August, 1914, it consisted largely of small assembling plants operating on German intermediates and therefore at the mercy of German producers. At the beginning of 1914, German concerns supplied nine tenths of the dyes used in the industries of the United States. Measured in terms of value, Germany manufactured 74 per cent of the world's output of dyes.<sup>17</sup>

This situation was due to Germany's encouragement of chemists and their research work, together with the policy of taking out patents in other countries where they were worked very little or not at all. A large proportion of the dye factories of England and France were owned and operated by German dye concerns, which situation was due to the patent laws of these two nations requiring the "working" of patents. On the other hand, the Germans owned practically no dye factories in the United States owing to the absence of a "working clause" in our patent law. During the war France and England took over the German dye factories, but the United States had no such factories to utilize—a situation due to a difference of patent laws.

Since the entry of the United States into the world war, the dye and chemical industries of the United States have received a special impetus. Under the Trading with the Enemy act, administered by A. Mitchell Palmer, licenses based on German patents held in custody in this country have been granted to American manufacturers of dyes and chemicals. Importation of such commodities from Germany and other countries has been greatly reduced.

The Chemical Foundation has recently been formed to acquire the German patents and hold them as a trustee for American industry, to eliminate alien interests which are detrimental, and, in general, to advance the chemical and allied industries in the United States. It is anticipated that nearly every important American manufacturer will be a stockholder in this concern.

A recent ruling of the alien property custodian is to the effect that dyes and chemicals manufactured in Germany during the war will not be received in this country because it would constitute an infringement of the licenses, based on German patents, recently granted to American manufacturers.

It is highly desirable that the foregoing measures, together with others, should be advanced and adopted so as to insure the future

<sup>17</sup> Department of Commerce, Special Agent Series, No. 96, p. 30.

of the infant industries recently developed in the United States, especially the dye and chemical industries.

A very essential step in this direction, as already intimated, is an amendment to the patent laws of the United States requiring the working of patents granted to citizens of foreign countries by the United States. Foreigners taking out patents in this country will then be compelled to put them to use in this country and hence develop the industries to which they relate.

The administration of a "working clause" involves, no doubt, serious difficulties, but the economic desirability of such a provision cannot be questioned in view of the experience of other nations which have such a provision in their patent laws and of the United States which has not—an experience already described in terms of the relative development of the dye and chemical industries in these different countries.

Moreover, the justification of the compulsory working of patents may be found in the spirit of our patent system, namely, to foster inventions, which spirit is diametrically opposed to the non-working or suppression of patents in spite of the fact that inventions so treated may be disclosed in letters patent issued by the Patent Office. The public, in keeping with the philosophy and purpose of the patent law, expects and should demand more than a mere description of the invention in return for the exclusive monopoly granted to the patentee for a period of seventeen years. The most efficient and profitable way in which the people can learn of an invention is by using it or the product which it manufactures.

The expectation that the patentee will use his invention is implied in our infringement laws which protect the legal monopoly of the patentee throughout the entire period during which his monopoly extends. The counterpart of this protection, it would seem, is that the patentee must put his invention to use.

The foregoing proposition will be accepted most readily when considered in connection with patents granted to foreign citizens. It is a contravention of our patent law and an economic injustice to the American manufacturer to allow a foreigner to take out a patent in this country merely for the purpose of reserving the United States as a market for his patented product, which is manufactured abroad exclusively. It means the exclusion of all other would-be inventors and competitors from the industry covered by the patent and at the same time, the building up of the industry in other countries, all to the detriment of the United States.

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